Paper No. 20

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ZHOU YANG, YIN-NIAN LIN,
ZHENYA ZHU and BRIAN G. RISCH

Appeal No. 2003-0365
Application No. 09/280,601

ON BRIEF

Before KIMLIN, OWENS and KRATZ, Administrative Patent Judges.

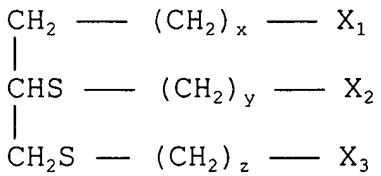
KIMLIN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 23-58 and 80-135, all the claims remaining in the present application.

Claims 23, 116 and 134 are illustrative:

23. A sulfur-containing urethane resin composition which comprises a polythiol compound represented by formula (1):



wherein X_1, X_2 and X_3 each is a hydrogen atom or a mercapto group; x, y and z

each is an integer of 0 to 8; and in their combinations, formula (1) has at least two mercapto groups,

a polyiso(thio)cyanate compound, and a compound having two or more reactive unsaturated groups and neither a hydroxyl group nor a mercapto group in an amount of 30 to 70% by weight based on the total weight of the composition.

116. A monomer composition characterized by being curable and which is cured by reacting the composition at an elevated temperature to form a homogeneous terpolymer resin of the monomer composition which terpolymer has a single glass transition temperature, does not have any phase separation and is optically clear consisting essentially of:

a first monomer represented by the formula:

$$R(NCY)_x$$

wherein R is a hydrocarbon or substituted hydrocarbon radical, Y is oxygen or sulfur and X is two or more;

a second polyene monomer wherein the polyene contains only vinyl functional groups; and

a third polythiol monomer.

134. A curable monomer composition for making a linear homogeneous terpolymer which terpolymer has a single glass transition temperature, does not have any phase separation and which is optically clear consisting essentially of the composition of claim 116 in solution in a solvent and which solution is polymerized or bulk polymerized at an elevated temperature to form the terpolymer.

In the rejection of the appealed claims, the examiner does not cite prior art.

Appellants' claimed invention is directed to optical terpolymers that are made by the reaction of a polyisocyanate or polyiso(thio)cyanate, a polyene and a polythiol.

The appealed claims stand rejected under 35 U.S.C. § 112 as follows:

(a) claims 121, 122 and 133 under 35 U.S.C. § 112, second paragraph;

(b) claims 134 and 135 under 35 U.S.C. § 112, second paragraph;

(c) claims 134 and 135 under 35 U.S.C. § 112, first paragraph;

(d) claims 116, 117, 124-132, 134 and 135 under 35 U.S.C. § 112, first paragraph; and

(e) claims 23-58 and 80-115 under 35 U.S.C. § 112, first paragraph.

In addition, claims 116-135 stand rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-24 of U.S. Patent No. 6,008,296.

Appellants submit at page 5 of the Brief that claims 23-58 and 80-115 stand or fall together, as do claims 116-135.

Appellants have apparently acquiesced to the 35 U.S.C. § 112 rejections identified above at (a), (b) and (c). The examiner's recognition of appellants' acquiescence has not been challenged on this record. Accordingly, we will sustain the examiner's rejection of claims 121, 122 and 133 under 35 U.S.C. § 112,

second paragraph, as well as the examiner's rejections of claims 134 and 135 under 35 U.S.C. § 112, first and second paragraphs.

We will not sustain the examiner's rejection of claims 116, 117, 124-132, 134 and 135 under 35 U.S.C. § 112, first paragraph. It is the examiner's position that "[a]ppellants have failed to indicate where support exists for stating that the polyene contains only vinyl functional groups" (page 5 of Answer, first paragraph). However, the examiner acknowledges that in the parent application the criticized language "was specified with a structural formula for the polyene, which contained only vinyl functional groups" (id.). Hence, we find no basis for the examiner's conclusion that the claim language "constitutes new matter when not presented with the structural formula which contains only vinyl functional groups" (page 5 of Answer, second paragraph). In our view, the structural formula in the parent application provides descriptive support for the language that the polyene contains only vinyl functional groups.

We will sustain the examiner's rejection of claims 23-58 and 80-115 under 35 U.S.C. § 112, first paragraph. We concur with the examiner that the original specification does not convey to one of ordinary skill in the art that the present inventors have possession of the polythiol compounds encompassed by the formula

recited in claim 23. Appellants' response to the rejection is that 1,2,3-propanetrithiol, identified in the present application, is a compound which "falls within formula (1) of claims 23 and 80 and shows that such polythiols are contemplated in the subject patent application" (page 9 of Brief, third paragraph). However, this response does not address the examiner's reasonable criticism that the recitation of one species does not provide descriptive support for the entire genus of compounds embraced by the claimed formula (see paragraph bridging pages 5 and 6 of Answer). Appellants have failed to present a single argument as support for the position that the compounds encompassed by the general formula are sufficiently similar to 1,2,3-propanetrithiol such that the single disclosed compound would be considered by one of ordinary skill in the art to be descriptive of the claimed genus. On the other hand, we concur with appellants that sufficient examples are presented in the specification to provide descriptive support for the claim language "neither a hydroxyl group nor a mercapto group."

Also, we agree with the examiner that appellants have not established descriptive support for the claimed ratio of 1.0 to 3.0 set forth in claims 26, 30, 83 and 87. We simply find no merit in appellants' argument that "[t]he ratio of NCO or NCS

groups and vinyl groups to -SH is preferably in the range of 1.05 to 2.0 which includes the '609 patent range of 1.0 to 3.0" (page 9 of Brief, last sentence). We do not understand how a range of 1.05 to 2.0 includes the broader range of 1.0 to 3.0.

Turning to the obviousness-type double patenting rejection, we note that appellants have offered no substantive rebuttal, and have offered to file a Terminal Disclaimer (see page 11 of Brief).

In conclusion, based on the foregoing, the examiner's decision rejecting the appealed claims is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

Edward C. Kimlin

EDWARD C. KIMLIN)
Administrative Patent Judge)
)
)
)
)
Terry J. Owens)
TERRY J. OWENS) BOARD OF PATENT
Administrative Patent Judge) APPEALS AND
) INTERFERENCES
)
Peter F. Kratz)
PETER F. KRATZ)
Administrative Patent Judge)

ECK:clm

DeLIO & PETERSON
121 Whitney Ave.
New Haven, CT 06510